

The opinion in support of the decision being entered today was *not* written for publication and is *not* binding precedent of the Board.

UNITED STATES PATENT AND TRADEMARK OFFICE

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BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES

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*Ex parte* JAMES W. ROBINS, THEODORE J. LECZO, GEORGE J. KOEING,  
and NICHOLAS M. RYMARCHYK, JR.

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Appeal 2006-1199  
Application 10/693,045  
Technology Center 1700

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Decided: September 28, 2006

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Before PAK, WARREN, and TIMM, *Administrative Patent Judges*.

PAK, *Administrative Patent Judge*.

DECISION ON APPEAL

This is an appeal from the Examiner's final rejection of claims 1 through 23, which are all of the claims pending in the above-identified application. We have jurisdiction pursuant to 35 U.S.C. § 134.

*I. APPEALED SUBJECT MATTER*

The subject matter on appeal is directed to a metal making lance assembly comprising a sensor feed tub and a lance defined as having a barrel and a tip attached to said barrel for discharging a gaseous metal treatment material. See

Claim 1, together with Specification at 6-10. The sensor feed tub can be attached to the exterior or the interior of the barrel. See Figures 1 and 2, together with Claim 1. Details of the appealed subject matter are recited in claims 1, 3, 10, and 12<sup>1</sup>, which are reproduced below:

1. A metal making lance assembly comprising:  
a barrel;  
a tip attached to said barrel, said tip including at least one nozzle for discharging at least one of gaseous and particulate metal treatment material into a metal treatment vessel; and  
a sensor feed tube carried by said barrel and adapted to accommodate passage of at least one disposable sensor, said sensor feed tube being separate from and isolated from fluid communication with said at least one nozzle.
3. The assembly of claim 1 wherein said sensor feed tube is disposed exteriorly of said barrel.
10. A metal making lance assembly comprising:  
a barrel;  
a tip attached to said barrel, said tip including at least one nozzle for discharging at least one of gaseous and particulate metal treatment into a metal treatment vessel;  
at least one disposable sensor for sensing at least one of a characteristic of a molten metal and an operating condition within a metal treatment vessel; and  
a sensor feed tube carried by said barrel and adapted to accommodate passage of said at least one disposable sensor, said sensor feed tube being separate from and isolated from fluid communication with said at least one nozzle.

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<sup>1</sup> The Appellants' arguments are limited to claims 1, 3, 10, and 12. As such, for purposes of this appeal, we limit our discussion to these claims consistent with 37 CFR § 41.37(c)(1)(vii)(2004).

12. The assembly of claim 10 wherein said sensor feed tube is disposed exteriorly of said barrel.

## *II. PRIOR ART*

As evidence of unpatentability of the claimed subject matter, the Examiner relies upon the following references:

Maatsch	US 3,396,960	Aug. 13, 1968
Fradeneck	US 3,813,943	Jun. 4, 1974

## *III. REJECTION*

Claims 1 through 23 stand rejected under 35 U.S.C. § 103(a) as unpatentable over the combined disclosures of Fradeneck and Maatsch.

## *IV. FACTUAL FINDINGS AND CONCLUSIONS*

We have carefully considered the claims, specification, and prior art references, including the arguments advanced by both the Appellants and the Examiner in support of their respective positions. This review has led us to conclude that the Examiner's §103 rejection is well founded. Accordingly, we will sustain the Examiner's decision rejecting the claims on appeal under §103. However, since our reasons for affirming the § 103 rejection are materially different from those set forth in the Answer, we denominate our affirmance as including a new ground of rejection. Our reasons for these determinations follow.

As evidence of the obviousness of the subject matter defined by claims 1 through 23 under 35 U.S.C. § 103(a), the Examiner relies on, inter alia, the disclosure of Fradeneck. (See Answer 3-4). The Appellants do not challenge the Examiner's findings at pages 3 and 4 of the Answer that:

Fradeneck shows a metal making lance assembly, where the term “assembly” denotes components employed together, but does not require the mechanical attachment together of all of the components, including a lance barrel and tip including a nozzle attached to the barrel (13) for discharging gaseous or particulates into vessel (10), a sensor feed tube (16) accommodating the passage of a disposable sensor (21), where the feed tube (16) is external, coaxial, parallel to the axis of, separate and isolated from fluid communication with the nozzle of [the barrel] (13), the sensor being suitable for the measurement of bath temperature (see claim 3[,] for example), and where the sensors comprise a plurality of sensors (see col. 3[,] lines 33-50[,] for example), that are loaded into the tube (16) by loading means (17) including sensor gripping means, and including control and data receiver means (28, 69 and 70) meeting the requirements of instant claims 20-22, where a flow of pressurized gas is introduced into the sensor tube (16)(see col. 2[,]lines 59-65[,] for example), thereby showing all aspects of the above claims except the disposition of the sensor and sensor feed tube...carried by the lance barrel . . . connected to the lance tip.

Although Fradeneck does not specifically show its sensor feed tube containing a sensor being exteriorly attached to or carried by its lance (barrel having a nozzle) for discharging a gaseous substance, it does teach that they can be arranged in a parallel manner and used together in the same metal making vessel. See, e.g., Figure 1. Since one of ordinary skill in the art would have reasonably expected them to produce the same functions and results in the same manner regardless of whether they are attached or unattached (e.g., attached or unattached to maintain an optimum distance, including the distance illustrated in Figure 1), we determine that it would have been *prima facie* obvious to use them together in an attached or unattached manner (e.g., exteriorly attached or unattached to maintain a distance shown in Figure 1 of Fradeneck) to carry out the same purposes as taught by Fradeneck.

The Appellants appear to assert that the use of the sensor feed tube containing a sensor taught in Fradeneck in a metal making vessel is disadvantageous. (See Spec. 2.) However, this assertion is not supported by any objective evidence. *In re De Blauwe*, 736 F.2d 699, 705, 222 USPQ 191, 196 (Fed. Cir. 1984); *In re Lindner*, 457 F.2d 506, 508, 173 USPQ 356, 358 (CCPA 1972). Moreover, claims 1, 3, 10, and 12 on appeal do not exclude such sensor means. *In re Self*, 671 F.2d 1344, 1348, 213 USPQ 1, 5 (CCPA 1982).

In view of the foregoing, we determine that Fradeneck alone would have rendered the claimed subject matter obvious to one of ordinary skill in the art. Accordingly, we affirm the Examiner's decision rejecting claims 1 through 23 under 35 U.S.C. § 103. However, since our reasons for affirmance are materially different from those set forth in the Answer, we denominate our affirmance as including a new ground of rejection against claims 1 through 23 pursuant to 37 C.F.R. § 41.50(b)(2004).

#### V. CONCLUSION

The decision of the Examiner is affirmed. However, our affirmance is treated as a new ground of rejection against claims 1 through 23.

This decision contains a new ground of rejection pursuant to 37 C.F.R. § 41.50(b) (effective September 13, 2004, 69 Fed. Reg. 49960 (August 12, 2004), 1286 Off. Gaz. Pat. Office 21 (September 7, 2004)). 37 C.F.R. § 41.50(b) provides "[a] new ground of rejection pursuant to this paragraph shall not be considered final for judicial review."

Appeal 2006-1199  
Application 10/693,045

37 C.F.R. § 41.50(b) also provides that the appellant, *WITHIN TWO MONTHS FROM THE DATE OF THE DECISION*, must exercise one of the following two options with respect to the new ground of rejection to avoid termination of the appeal as to the rejected claims:

(1) *Reopen prosecution*. Submit an appropriate amendment of the claims so rejected or new evidence relating to the claims so rejected, or both, and have the matter reconsidered by the examiner, in which event the proceeding will be remanded to the examiner. . . .

(2) *Request rehearing*. Request that the proceeding be reheard under § 41.52 by the Board upon the same record. . . .

#### *VI. TIME PERIOD FOR RESPONSE*

No time period for taking any subsequent action in connection with this appeal may be extended under 37 C.F.R. § 1.136(a).

AFFIRMED – 37 C.F.R. § 41.50(b)

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CKP:hh